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AUTHOR Birch, Gary; And Others
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ABSTRACT

A study investigated the effect of explicit instruction in reading and writing strategies on student performance in a college-level Japanese partial immersion course. Subjects were five students, four of whom had been subjects of an earlier study of reading and writing strategies and all of whom were training to be Japanese teachers. In class, students were introduced to a variety of strategies for reading and writing, particularly as they related to understanding of kanji. Data were drawn from classroom observation, interviews with students about their reading and writing strategies and perceptions of classroom progress, and second interviews with think-aloud protocols. The strategies used in the think-aloud protocols and mentioned in interviews are charted, noting frequency of use, technique, and student interpretation of the process. It is concluded that the explicit teaching of learning and production strategies for reading and writing Japanese resulted in a broader range of strategies used, students were approaching reading and writing tasks with more confidence, skills had improved, and students found the learning of kanji a more manageable task. It is also suggested that the explicit teaching of strategies contributed to a stronger language focus, and diminished content focus, of the course. (MSE)

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THE EFFECT OF EXPLICIT TEACHING OF LEARNING STRATEGIES ON STUDENTS' READING AND WRITING IN A JAPANESE PARTIAL IMMERSION PROGRAM

Gary Birch, Enju Norris & Himiko Negishi

Faculty of Education

Griffith University

June 1995

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The effect of explicit teaching of learning strategies on students' reading and writing in a Japanese partial immersion program

Report on research project funded by Faculty of Educat.on Faculty Research Grant

Semester II, 1994

Report prepared by:

Gary Birch

Enju Norris

Himiko Negishi

Faculty of Education

Griffith University

Nathan Q 4111

Report prepared: June 1995

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Abstract

This study takes up one of the recommendations made in a previous study (de Courcy and Birch: 1993) which investigated the reading and writing strategies of students in a Japanese immersion program conducted in the Faculty of Education at Griffith University. That study recommended *inter alia* that because the students investigated had a limited range of strategies to cope with the demands of reading and writing in Japanese, they should be explicitly taught a range of facilitating strategies.

The study reported here describes the strategies taught to the students and attempts to assess the outcomes of this intervention.

The research methodology involved non-participant observation, interviews with students and the use of think-aloud protocols.

The research found that the students made use of a wider range of strategies after the intervention and reported that they felt more in control of the learning and recalling of kanji. Both students and teachers reported an improvement in the students' reading and writing proficiency. However, it was felt that there was a danger that the approach led to the program having less of a content focus and that some students were beginning to regard it as a traditional language-focused program.

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The effect of explicit teaching of learning strategies on students' reading and writing in a Japanese partial immersion program

Gary Birch, Enju Norris & Himiko Negishi

1. 0 Introduction

1.1 General Background

There is a growing recognition in Australia of the importance of the study of foreign languages (Lo Bianco: 1987; Ingram & John: 1990; Braddy: 1991). While governments officially support a range of languages, both European and Asian, the most spectacular growth has occurred in Japanese. In five years from 1983 to 1988, the number of students studying Japanese in Australia had increased from 61,000 to 121,000, an increase of 98% (DEET: 1988). Based on figures supplied by the Queensland Department of Education's Languages and Cultures Unit (LACU), the numbers of students studying Japanese in Queensland secondary schools rose from 7492 in 1989 to 16044 in 1994, an increase of 114%, while over the same period, numbers of students of Japanese in Queensland primary schools rose from 659 to 26246, an increase of 3882%.

This rapid growth has created an urgent demand for Japanese teachers which will need to be met largely by language and education departments in universities. Furthermore, recent language policy proposed by Ingram and John (1990) and subsequently adopted by the Queensland Department of Education requires foreign language teachers to have attained quite ambitious levels of proficiency in the four macroskills.[1] In order to meet the demand for Japanese language teachers in secondary schools and to achieve the levels of proficiency required by the

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[1]Ingram and John (1990: 65) state "*...it is recommended that for languages using ideographic scripts the minimum proficiency for teachers be set at S:3, L:3, W:2, R:2 and for other languages S:3, L:3, W:3, R:3.*" See Appendix A for a description of these levels.

Queensland Department of Education, the Faculty of Education at Griffith University undertook a Japanese immersion approach in the LOTE strand of its Bachelor of Education (Secondary) program from semester 2, 1993.

1.2 Specific background to the research project

It was decided to use an immersion approach since it was felt that unless something more radical was attempted than what is done in conventional approaches to the teaching of Japanese, there would be little chance that students would achieve the target proficiencies by the end of their Bachelor's course. French immersion programs had been operating in Canada for almost 30 years and their results had been consistently superior to those achieved in other programs (Harley: 1984). In addition, French, German and Indonesian immersion programs had been introduced in a number of Queensland secondary schools and a pilot French immersion project for teacher education students had been successfully implemented on Mt Gravatt campus in 1989 (Chappell & de Courcy: 1993).

The first subject to be taught in the Japanese immersion strand was *Contemporary Japanese Society*. Because it is acknowledged that reading and writing in Japanese (and other scripted languages) imparts a degree of difficulty not encountered in alphabet languages[2], it was decided to monitor the progress of students in these two macroskills during their first semester of the program. Specifically, a research project was mounted which investigated the strategies used by the students in developing and using their reading and writing skills (de Courcy & Birch: 1993). While suggesting that the nature of the immersion approach may induce certain strategies which are beneficial to the development of fluent reading, the authors commented on the limited range of strategies displayed by the students and recommended that it would be worthwhile in future research

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[2] Garnaut (cited in Ingram & John, 1990: 40) maintains *"that it takes two or three times the number of hours of study to achieve basic proficiency in Chinese, Japanese and Korean as in European languages."*

to investigate "*the effect of direct teaching of reading and writing strategies within a Japanese immersion program*" (de Courcy & Birch: 1993: 41). It is this recommendation which provides the focus for the current project.

2.0 Literature Review

2.1 Reading and writing in Japanese as a second/foreign language

As is to be expected, given the difficulty that students coming from an alphabet-based language experience with reading and writing character-based languages, considerable research has focused on students' learning processes in reading and writing Japanese.

Foster (1990) found that the strategies developed by students to assist with reading in their first language influenced the way in which they approached the reading of languages which used different scripts. This suggests that students who have learnt to read an alphabet-based language will need to develop additional strategies when faced with the visual dimension of a character-based language. This could explain why students of Japanese experience considerable difficulty with kanji and why they need assistance with processing and learning strategies.

Horiba (1990) found that L2 readers with limited proficiency tended to focus more on vocabulary and syntax when reading than did L1 readers and more proficient L2 readers. However, in general, the most dominant strategy used by L2 readers was the application of schema to activate relevant information in order to deduce meaning.

Hatasa (1989) found that English speaking students of Japanese experienced less difficulty in recognising and retaining pictographic characters than non-pictographic ones and that visual complexity was more of a problem in production than recognition. His study failed to show a significant benefit from pre-training of students in strategies for learning kanji.

Itoh (1991, reported in Anderson (1994)) investigated whether instruction in learning and reading strategies helped to increase the proficiency of students of

Japanese. The study indicated that only direct strategies were transferred, a result which confirms Oxford's (1992/1993) findings that for the teaching of strategies to be effective, they should be taught explicitly.

A study by Bourke (1992) of students of Japanese at an Australian university investigated what strategies they used to recall and reproduce kanji. The study found that the students who scored most highly in the writing test were those who employed the greatest range of strategies. Bourke concluded "*that if students can be taught more learning strategies in the kanji learning task, ... more successful recall strategies will result*" (p.38).

Anderson (1994) studied the cognitive strategies of tertiary level students of Japanese as they negotiated the reading process. Like most studies of this kind, inference/prediction based on schema that students bring to the task rated highly as a strategy. However, translation into English was the students' most frequent strategy. Anderson explains this in terms of the tasks that the students were required to perform in the program.

> *... comprehension is the main focus of the subject and 70% of the assessment involves answering English questions about Japanese textual materials. Therefore it would be expected that translation into L1 would be the most used strategy* (Anderson, 1994: 20).

This supports Carr's contention (cited in Watanabe: 1987) that the task which the learner is required to perform will often determine the strategy used.

2.2 Reading and writing Japanese in immersion programs

Very few studies have focused on reading and writing in Japanese immersion programs, mainly because there are not many examples of such programs. It is generally felt that because of the nature of the Japanese writing system, access to the authentic content-based material required in immersion courses would prove too difficult for students until they had achieved very advanced levels of proficiency.

Dowelling and Mitchell (1993) describe a reading course in Technical Japanese offered to students enrolled in a *Science with Japanese* degree program at Griffith University. While this is not an immersion program, it is content-based rather than language-based and one would expect that many of the reading strategies employed by learners would be similar to those used by immersion students. While the study did not specifically set out to identify strategies, one can infer strategies which would have been used by looking at the skills which students felt they had developed as a result of participating in the course. The main skills were:

- understanding simple grammatical structures
- using a bilingual dictionary
- using a character dictionary
- literal translation (Dowling & Mitchell, 1993: 443)

De Courcy and Birch (1993), after studying the reading and writing strategies used by university students enrolled in the first year of a Japanese immersion course, concluded that students in immersion programs tended to develop strategies which were more meaning-focused than those used by students in language-focused programs. However, they also commented on the rather narrow range of strategies employed and recommended, *inter alia*, that future courses contain a strategy-teaching component designed to help students with their reading and writing.

The project which is the subject of this report has implemented this recommendation with the same students studied by de Courcy and Birch (1993).

3.0 Methodology

This study aimed to investigate the effect on tertiary level students enrolled in a Japanese partial immersion program of explicit teaching of strategies to assist reading and writing in Japanese.

Qualitative methods of data collection similar to those used in the 1993 study were employed. The same four students again volunteered to participate and a

fifth student offered to take part as well. Copies of information given to the students together with the original consent forms are to be found in Appendix B.

3.1 Study design

Data collection and analysis was conducted according to the following plan:

i. July 1994 - October 1994: Observation of classroom activities.

ii. August 24 - 26, 1994: Thirty minute interviews with students about their reading and writing strategies and their perceptions of their progress in the immersion program.

iii. October 20 - 21, 1994: Second interview in more depth than the first, involving "think aloud" protocols.

iv. November 1994: Data analysis

v. December 1994: Preparation of report

3.1.1 Observation

Observation was combined with interviewing as a data gathering approach since it allowed the researchers to gain direct knowledge of the research context (Becker & Geer, 1982: 239).

Observation was conducted by the research assistant and the principal researcher, both together and separately, acting as non-participant observers. Both took field notes which described the activities of the classroom which they later compared and discussed to ensure reliability of interpretation. Discussions were also conducted with the teacher based on the observers' observation notes as a further check on reliability of interpretation.

3.1.2 Interviews

Interviews were combined with think aloud protocols as principal sources of data in this study. This allowed the strength of the interviews as a data-gathering technique to be exploited ("the respondent can move back and forth in time" (Lincoln & Guba, 1985: 273)) while guarding against what Wenden (1986: 196) sees as one of their limitations, viz, "*subjects remember what they have done in particular circumstances, and turn this information into a general procedure.*"

The first set of interviews were conducted towards the end of August, 1994. Following the procedures recommended by Spradley (1979), they were largely unstructured. However, students were required to discuss the strategies that they adopted in their reading and writing and the extent to which the teaching of strategies had helped the development of these skills.

Interviews were conducted by the chief researcher and the research assistant in the office of the chief researcher. By the time the interviews were conducted, a good relationship had developed between the students and the interviewers due to the interviewers' regular attendance at immersion classes as observers. Because of their participation in the research project in 1993, the students were familiar with what was expected of them, and were quite relaxed. The interviews were audio taped and later fully transcribed.

The transcriptions, which were made by the research assistant, were verified by the chief researcher and alterations made where necessary.

3.1.3 Think aloud protocols

Think aloud protocols are one of a range introspective methods intended to assist in the observation of cognitive processes. Following Ericsson and Simon (1987) this study made use for the most part of concurrent reports which accessed information which was held in short-term memory. However, there were instances where it was necessary to probe a subject's processes retrospectively when the information had passed into long-term memory. While this was considered necessary since the subject was not forthcoming with information which was felt to be relevant, information retrieved in this way needs to be treated with caution according to Ericsson and Simon (1987) since it may be considered potentially fallible, "*in that other similar memory structures may be accessed instead of those created by just-finished cognitive processes*" (p.41).

The think aloud protocols were based on the use of a cloze passage, in which kanji related to a theme which the students had been recently studying (New Year celebrations in Japan) had been deleted. Kletzien (1991), in her study of strategy

use by good and bad readers, chose cloze procedure since "*it taps the reader's ability to make use of syntactic and semantic knowledge*" (p.71-72).

The subjects were given two versions of the same passage in sequence, the first without any furigana and the second with furigana supplied above those kanji which were considered to be potentially difficult for the students. They were given the second version when it was felt by the students and the researchers that they had exhausted the possibilities of any further comprehension. Students were allowed access to kanji dictionaries and Japanese-English dictionaries, as the aim of the procedure was to observe reading strategies rather than to assess proficiency in reading.

At the end of the cloze procedure, students were encouraged to reflect on their perceptions of their progress in the program during the course of the semester.

The think-aloud session was tape-recorded and later transcribed using the transcription conventions listed in Appendix D.

3.1.4. Data Analysis

Data gathered through the interviews and the think aloud protocols were analysed in the first instance using the categories adopted in de Courcy and Birch (1993). After the first analysis, the researchers compared their interpretations of the data and additional categories were added in order to capture the change in strategy use which was seen to have occurred since the previous study. As had been done previously, memos were written to clarify the new categories according to the procedure recommended by Miles and Huberman (1984).

The transcripts were read and analysed independently several times by two of the researchers in order to arrive at inter-rater reliability in the interpretation of strategies. The use of matrices helped to clarify patterns of strategy use which emerged in the course of the analysis.

3.2 The Intervention

It was decided to integrate the teaching of strategies with the teaching of content and, since the previous study had identified kanji as the major source of problems for the students, to focus mainly on strategies for learning to read and write kanji.

3.2.1 The setting and participants

Students involved in this study were in the third semester of the Languages Other Than English (LOTE) strand of the Bachelor of Education (Secondary) course. They had already studied the following subjects in Japanese: Contemporary Japanese Society; Education in Japan; LOTE Curriculum Development 1. In semester 3, they were studying LOTE Curriculum Development 2 and Creative Writing in Japanese.

LOTE Curriculum Development 2 involved the students, who were training to be teachers of Japanese, in the study of various theories of second language learning and teaching and the ways in which these theories might be implemented in the Japanese classroom. Students were required to demonstrate their mastery of second language teaching skills through micro-lessons in which they assumed the role of teacher with their classmates in the role of secondary school students of Japanese. They were also required to develop teaching materials which they used in their micro-teaching sessions and will use in the future when they engage in practice teaching in local secondary schools.

In Creative Writing in Japanese, students used simple Japanese stories as models for their own writing of stories based on similar themes. In this subject they used a textbook designed specifically to teach Japanese creative writing.

3.2.2 Teaching strategies for reading and writing kanji

Students were introduced to a range of strategies designed to assist them in overcoming problems that had been identified in their reading and writing due to lack of facility with kanji. The teachers attempted to integrate the strategies into the subject matter content that was being studied at the time in order to preserve

the content focus of the immersion program. The following strategies were covered:

- accessing meaning through original pictorial representation
- relating kanji to signs which attempt to convey abstract meaning
- analysing kanji through their composite meaning segments
- accessing meaning through radicals
- association techniques where students are encouraged to relate kanji to imaginative stories of their own invention
- (in the case of lexical items which consist of more than one kanji) relating the meaning of the lexical item to the combined meanings of individual kanji
- reading aloud to associate kanji with its sound
- encouraging students to attend to and to use kanji which occur with high frequency in the field which is the focus of the unit being studied
- strategies for dictionary use
- developing skills in stroke order

4.0 Results & Discussion

This discussion will focus on strategies observed in the think-aloud protocols (October, 1994) together with additional strategies mentioned by students in the initial interviews conducted in August, 1994.

4.1 Reading: think aloud protocols

Table 1 lists the strategies identified in the think aloud protocols together with the frequency of occurrence of each strategy.

Generally, students relied on remembering **key vocabulary and phrases** as their most frequently used strategy. While **skimming** has been treated in the analysis as a separate strategy, one could be justified in seeing it as related to the students' tendency to survey the text for familiar vocabulary in order to establish the field of discourse before attempting to access more specifically detailed meaning. This then is related to the other dominant strategy observed in the think aloud protocols: viz. **making an inference and drawing conclusions**.

The students' inferences are based on two types of knowledge that they bring to bear on the text:

i. linguistic

ii. knowledge of the world

This is reflected in strategies that the students frequently use. For example, the third most frequent strategy is **using prior knowledge**. One would expect this to figure prominently in a content-based approach such as immersion, where the aim is to use language to teach a body of knowledge. In such a course, the students' reading is drawn from the field of discourse that they are studying, allowing them to apply knowledge of the field that they have acquired to the comprehension of their reading texts. When it comes to the application of linguistic knowledge to the inferencing process, students frequently use their knowledge of **syntax** together with their knowledge of Japanese **sentence structure**.

What emerges is a picture of students who are predominantly top-down processors, but who make use of bottom-up strategies to assist them in their inferences when they have exhausted their semantic resources.

Students showed greater facility in reading in this study than in the previous one, although their approach remained basically the same. What is noticeable in this study, however, is the increased *range* of strategies that students now employ. Three of the new strategies came from those which had been consciously taught as a result of a recommendation made in the earlier study. These involved the **use of radicals**, the **use of a kanji dictionary** and a **reliance on phonetic script** to access the meaning of a kanji.

Table 1.

Strategies used in think aloud protocol

(Based on Kletzien's classification of strategies together with additional observed strategies)

Strategy & Frequency	Criteria	Sample student responses
Looking for key vocabulary or phrases (40)	The response involves reasoning around a particular word or phrase. Alternatively, the subject indicates inability to fill in the cloze blank because of a lack of understanding of particular words the subject views as crucial.	J: I don't know what that is from there on, so I don't know what they're doing. M: and without knowing the rest of the kanjis ... I wouldn't be able to do any more.
Making an inference or drawing conclusions (40)	The response indicates that the subject had made a guess or inference based on his or her own knowledge AND information from the text	J: that one would be hi ro en which is the wedding reception because that is the wedding, ceremony? and it's saying, that, I don't understand the full meaning of the sentence but, that's money, and it costs a lot of money, so obviously it would be related to the wedding, which is the wedding reception so ...
Using syntax or punctuation (18)	The subject's response mentions aspects of grammar, parts of speech, or punctuation.	S: and then probably the wa after it has got to mean something, like maybe a person or something.

Recognising the structure of a sentence (12)	The subject's response shows that he or she recognised the author's organisation of the sentence under consideration	M: um well, I didn't think it went in any of the others and I wouldn't - I wouldn't know for sure because I can't really, I don't know what what sho tai sa re ru hito means or what this question means but um, it just seems to fit into that one, the - the sentence structure and where the gaps are...
Re-reading previous text (1)	The subject mentions specifically going back and reading something again, or indicates using information that was more than a sentence away from the cloze blank.	S: oh so that means - oh that's the wedding reception this bit here and something, oh that's - that'd be that hi ro en here, changed my mind ... because yeah [rubs out] because that says like the wedding, the ceremony and the reception, the money from that, is a lot I think
Reading subsequent text (6)	The subject indicates specifically reading ahead or mentions information which is located in a sentence after the sentence where the cloze blank occurs.	S: have a guess what that is, because I don't know the actual word there but when I read the rest of the sentence I'll probably figure it out?
Using prior knowledge (23)	The subject indicates that he or she already knew something about or had already experienced something (sometimes phrased as a statement of fact that the subject assumed was common knowledge)	T: and with this one I know that in Japan, before the wedding the lady buys things.
Reading kanji: tolerance of ambiguity (6)	Unfamiliar kanji are avoided at first	M: I skip all the kanji that I don't understand

Reading: social strategies (12)	Students check meaning by asking another person	S: (to Japanese interviewer) SHINSEKI. OK. What's this one then? Don't tell me you don't know. I know you know because you're Japanese. Is that sort of IE? It is? Another kanji, what does it mean?
Reading & writing: use of radicals (10)	Student makes some use of radicals to help with the comprehension of kanji	J: ...I'd presume it was some type of money or something because it's got the money sign (radical) there
Using kanji dictionary (15)	Student uses kanji dictionary to determine the meaning of a character	M: I'm just looking up MISOKA in this third sentence, that means New Year's Eve ...
Reading kanji: reliance on phonetic script (8)	Student is unable to work out the meaning of an unfamiliar kanji without the furigana	M: I know it's something WARI because I can only read the hiragana but not the kanji, so I think - I presume that would be O- WARI, so the end of the year
Skimming for overall meaning (4)	Looking for global meaning before worrying about specific details	M: Well, first time I'll kind of skim through it and see what I can just pick up but I'm not gonna write anything

Table 2

Additional strategies mentioned in interviews

Strategy & Frequency	Criteria	Sample student responses
Reading kanji: not same as kana (5)	Students read kanji for meaning: kana are generally sounded out → meaning	S: ... the hiragana means, words to me, as in WORDS, whereas the kanji has a MEANING - rather than a word
Using card system for self-testing (4)	Students prepare cards with kanji on one side and hiragana on the other for the purpose of self-testing	S: Yeah, I have flash cards that I use and I write kanji on one side and hiragana on the other side and that way you can go through the kanji and recognise them
Writing: translation (1)	Students write first in English and then translate.	J: I wrote down what I wanted to write in English, and then I sort of tried to put it in Japanese, but I had to change it a lot because you can never - go exact
Writing: recalling kanji (5)	Remember one part and guess the rest	M: Generally if I can't remember a kanji - there's usually some part of it that I can remember and I just, kind of [laughs] make it up myself and then ask the others if it's right.

Writing: directly into Japanese (3)	Student tries to write directly in Japanese without going via English	S: ... I don't do that (translate from English) all the time ... I would do that with very complicated stuff like a seminar which I've just given to sensi to proof read ... but in class, if we had to write a paragraph ... I'd just write it straight into Japanese.
Use another L2 or L1 (4)	Student draws on their knowledge of another language (other than English) to help understand Japanese	T: ... that's how I learn it ... some words you don't get the full meaning in English but in Vietnamese you do.
Reading: translating (3)	Student translates into English	I: ... are you going to translate into English ... or just try to get the meaning in Japanese? S: No, I would translate it to English probably ... and I'd read the sentence and make sure I know what the words mean and then try to fit them together.
Using Jiejing (Chinese word processor) (5)	Students use Jiejing as an aid to writing	I: How about using the computer, Jiejing. Would it help you to remember kanji? M: I don't think it helps me to remember it but it definitely helps with my stroke order.
Writing: focusing on stroke order (8)	Student makes a conscious effort to learn correct stroke order	T: I actually recognise the (stroke) order, it makes it easy ... I find it's easier when someone actually writes it on the board and shows the steps clearly because you know that kanji has so many strokes and I don't know where to start.

Recalling lexical items through their composite characters (3)	Student recalls the meaning of a compound lexical item by remembering the meaning of its composite parts	T: I just remembered this is *parents*, and when I remembered I said yeah *relatives*, a *parent* kanji in front of it
Recalling kanji as pictures (5)	Students relate kanji to a pictorial representation	R: I don't mind kanji because I see it more as pictures
Writing: learning kanji by repetition (6)	Writing the character many times	S: When I'm learning to write it, I just usually write it over and over and over again, until in my head I can associate that kanji with that word, it's just almost subconscious that you can tell
Writing: using Japanese in note taking in other subjects (5)	Student takes the opportunity outside of the immersion program to use Japanese for note taking	S: If you're in a lecture and they're talking about something and you know the kanji for it often you'll write the kanji down because it's a lot quicker

The first two of these strategies have had a liberating effect upon the students as was evidenced in the interviews conducted with them in August 1994.

I: *For example if you don't know how to read this kanji, do you use a dictionary?*

Sharon: *Yeah, a kanji dictionary.*

I: *If you can't read (pronounce)?*

Sharon: *If I can't read that and I can't guess what it means then I usually use a kanji dictionary.*

I: *Is that something that you've been doing for a long time? For example, at the beginning of last year when you started the course, did you have a kanji dictionary that you used to use?*

Sharon: *No I bought one half way through last year I think it was and it was very helpful and I was very glad and I use it a lot.*

The think aloud protocols were able to reveal the dominant strategies that students used in their reading. However, it was necessary to probe through interviews to discover what strategies the students used in writing Japanese and in learning kanji.

4.2 Writing strategies

The strategies used by students when writing Japanese seem to depend on the writing tasks that students are engaged in. One of the students reported engaging in the drafting of difficult tasks firstly in English and then translating into Japanese, while for more simple and routine tasks, she wrote directly in Japanese.

Sharon: *I don't do that (compose in English and translate) all the time ... I would do that with very complicated stuff like a seminar ... but in class if we had to write a paragraph about something ... you know I'd just write it straight into Japanese.*

Another student, who prefers to write directly in Japanese, chose to do so because she found that when she expressed ideas in English first, it resulted in the need for Japanese of a complexity that she considered beyond her at this stage.

Rachel: *It's not because I'm good ... I don't find the time ... my ideas in English are just too hard for me to write in Japanese, so I don't even bother writing English first.*

All students reported using the computer program **Jiejing** in their writing. However, opinions were divided concerning its usefulness and on the way it ought to be used.

Terri: *I actually type everything out ... because I like the stroke order ... but my friends ... they only hit the first radical, if it comes up, they use the space bar just to take the word ...*

[*Jiejing* allows the user to select from a number of characters which the computer retrieves from its memory on the basis of contextual clues. If this is done the user need not type in all the strokes.]

A number of students report using Japanese for **writing notes in Japanese** as a way of excluding others who could not comprehend Japanese.

Mary: *... I used to in lectures (in other subject areas)... we were writing notes to each other. We used to write them in Japanese ... it's really horrible but if we were talking about someone who was sitting in front of us ... or behind us and we didn't want them to know, even though our Japanese would be really bad, often that was half the fun trying to guess what they were trying to say...*

One of the subjects reported that she used kanji for certain words when taking notes in other subjects.

Sharon: *... if you're in a lecture and they're talking about something and you know the kanji for it often you'll write the kanji down because it's a lot quicker than like "people" or "person" in English.*

4.3 Learning strategies for kanji

There was evidence that students were using a greater range of strategies to learn kanji than had been the case when the previous study was undertaken. As has been indicated, teachers focused on a number of strategies to assist students in

learning both to read and write kanji. Many of these strategies were mentioned in the August interview and were in evidence in the students' performances in the think aloud protocols. In addition to the strategies explicitly taught were other strategies that students had developed independently.

4.3.1 Card system for self testing

Almost all the students in the study reported using cards on which they wrote new kanji. Some students used the cards to associate the kanji with hiragana.

Sharon: *Yeah, I have flash cards that I use and I write the kanji on one side and hiragana on the other side and that way you can go through the kanji and recognise them and the other way you can look at hiragana and you can write kanji out and see if you've got it right ... it makes it more interesting.*

Another student reported on a card system which involved the development of associations between the various parts of the kanji.

Mary: *I've got some cards ... I bought them ... generally what I do ... this is how I learn my kanji ... for example this is BEN as in OBENTOU which means "packed lunch" and then I make up some stories ... for example, I say this is a road going up to a mountain and you take a packed lunch and then this kanji is TOU in OBENTOU and then I'd say this is like a piece of cake that you take in a packed lunch.*

Mary recounts two strategies, here. Her use of cards is a strategy that a number of students employ and while it is not one of the strategies which has been explicitly taught in the program, it is likely that it has been adopted on the recommendation of peers who have found it helpful. The other strategy involves association which is one of those which the teacher explicitly taught. It is interesting to observe how it has been grafted on to another strategy thereby personalising the learning process.

4.3.2 Learning kanji by repetition

All students reported using repetition as a strategy for learning to write kanji.

I: *... do you do anything else to help you memorise kanji?*

Sharon: I just have to write them, write them, write them hundreds of times to remember them ...

However, some students are combining other strategies with the repetition so that there appears to be more cognitive engagement than was the case when students were interviewed during the previous study. Sharon, for example, found that if she combined a semantic analysis of the component parts of the kanji with repetition, the seemingly impossible task of committing kanji to memory was made more manageable.

Sharon: *Like "marriage" right? Imagine this is the man and this is the woman and this bit comes from something else which means tied together ... and you know that ... and I also look at different parts in my kanji dictionary and you find that they do link together which makes it a lot easier to remember.*

I: *And ... is that something that you've done just recently?*

Sharon: *Yes it is ... in the last couple of tests, because we had so many and I was just writing and writing and I wasn't remembering and I thought what else can I do and I thought ... uh, well I'll just look them up and see ... It was a last resort and it actually worked and that's how I remembered a lot of them.*

This contrasts with other students like Joy, whose main strategy for remembering kanji still is endless repetition.

Joy: *Yeah I think if we had a really good strategy, we could probably handle that much in a week, but at the moment not when you have to repeat the kanji twenty times before you can even comprehend it properly and it's too time consuming ...*

4.3.3 Recalling kanji as pictures

Most students found that their ability to recall kanji was enhanced by relating them to their original pictorial representations or to imaginative representations of their own.

Rachel: *... I don't mind kanji because I see it more as pictures ... I like drawing and stuff like that, so I relate it that way*

Mary: *... SUKI ... kind of like noughts and crosses ... so I make up a story like I like to play noughts and crosses ...*

Joy: *... the kanji for forest is like three trees ... and the kanji for tree actually does look like a tree, so it's really easy to remember.*

4.3.4 Recalling lexical items through their composite characters

This is one of the strategies that was explicitly taught after the previous study. Three of the five students interviewed mention finding the strategy effective in helping them recall the meaning of complex kanji.

Sharon: *Imagine this is the man and this is the woman and this bit comes from something else but to me just one stroke in it can trigger something like "I think I recognise this part ..." Imagine this is the man and this is the woman and this bit comes from something else which means "tied together" ... and I also look at different parts in my kanji dictionary and you find that they all do link together which makes it a lot easier to remember.*

Mary adopts this strategy but has not yet devised a means of overcoming the range of possible meanings that a syllable that relates to a particular kanji may have.

I: *For example like OBENTOU ... TOU means also "hit" or "win" lotto ... so it can be a different meaning ... if you make a word and if you remember the meaning ... I think it's easier later on ... otherwise, just one meaning of the kanji sticks in your mind and you can't change it later on.*

Mary: *That's what I mean ... I tend to learn only the one meaning ... say for example if I was reading a sentence and then they use it as "win a lotto" like you said ... I'd be thinking "a packed lunch"... That happens a lot, actually. I sit in class and I see a kanji and say it the way that I remember it but it's nothing like ... it's intended to be.*

What Mary is doing here is an example of an overgeneralised strategy which is somewhat analogous to an overgeneralised grammar rule. What needs to occur now is for her to develop additional strategies to cope with the restrictions which apply in such cases.

4.3.5 Focusing on stroke order

A considerable emphasis was placed on the development of correct stroke order in writing kanji. Specific lessons were dedicated to the writing of targeted kanji drawn from the content-focused lessons. In addition, students made use of the Jiejing word processing program which emphasises correct stroke order.

In the 1993 study, students did not appear to make a particular effort to focus on stroke order as an important aspect of their learning to write kanji. By contrast, in this study the same students are keenly aware of its importance and are appreciative of the initiatives which have been undertaken in class to assist them to come to terms with the problem.

Terri: *... I find it's easier when someone actually writes it on the board and shows the steps clearly, because you know that kanji has so many strokes and when you put it together I can guess what it means*

Terri's determination to practise and learn correct stroke order is so strong that when she uses Jiejing she refuses to make use of the program's prompting feature, preferring to type in all the strokes in their correct order.

I: *How about the computer ... did you use Jiejing computer? Is it helpful to improve your reading and writing?*

Terri: *I don't know about reading ... I think with writing ... I think so but not very much ... because to me ... I actually type everything out ... because I like the stroke order ... but my friends, they only hit the first radical ... if it comes up they use the space bar just to take the word.*

The potential of the computer program as an aid to the development of correct stroke order is a source of debate among both students and teachers.

I: *Do you ever make use of the computer? Jiejing?*

Sharon: *No ... not to learn anything?... just for pure word processing which is all Sensi says we need to do anyway ... she doesn't encourage us to use it for anything else.*

On the other hand, some students see it in a more positive light.

I: *How about using the computer, Jiejing ... would it help you to remember kanji?*

Mary: *I don't think it helps me to remember it but it definitely helps with my stroke order.*

I: *Does it?*

Mary: *Yeah, because it's virtually impossible to use Jiejing if you don't know the stroke order.*

The same student employs the far more traditional strategy of numbering strokes to complement her use of the computer.

Mary: *... the teacher will go through and show us the stroke order and I write little numbers next to the stroke orders as she's doing it ... so when I go home I can practise the stroke order in the boxes.*

In discussions with the teachers involved in the program it is evident that the students are coping better with written Japanese, especially with their use of kanji. The students themselves feel more confident and report an increased use of kanji.

I: *Do you find yourself including a higher percentage of kanji in your writing now?*

Mary: *Yes definitely. ... we are given a few (kanji) every week ... and they're giving us enough time to go home and learn them and they give us a lot of examples of the times we can use them in our writing and they use them a lot during the lessons.*

5.0 Conclusion

As might be expected, when we compare students' current performance in reading and writing with their level of performance at the same time in the previous year, we notice a marked improvement. While it was not part of the methodology of this study to quantify the students' performance levels, feedback from both the students and their teachers supports the view that students have undergone a significant improvement.

What this study has been able to establish in a more objective way is that the students are more conscious of strategies which might enhance both their ability to develop and to use their Japanese reading and writing skills. This has been especially the case with their ability to cope with kanji, an area which, while still presenting difficulty, is perceived by the students as much more manageable.

The most obvious change relates to the range of strategies that students were observed using and that they reported themselves as using. The number rose from 17 to 26 during the twelve months between the 1993 and the 1994 study. Even though one would be unwise to make too much of these kinds of statistics, they do signal the fact that the students now have a greater repertoire of ways of coping with their reading and writing.

One of the concerns which might be legitimately raised about the intervention which was undertaken in this study is that, in explicitly teaching strategies, there is a risk that the students' focus will be diverted away from the subject matter of the course towards the language. Putting this in another way, it would be unfortunate if the course developed a form focus rather than a meaning focus, since the success of immersion approaches is generally attributed to their emphasis on the teaching of content rather than the language through which this content is expressed

(Krashen: 1984). Indeed, at least one of the students demonstrated explicitly a tendency to see the immersion program as a language rather than a content program.

Mary: *I just group the two subjects together as Japanese, like in high school because I just had Japanese and I think maybe that's what I'm doing now.*

A statement such as this should cause us to question if the program as it is currently offered is really an immersion program and to what extent the explicit teaching of strategies detracts from its content focus. While it is not intended here to argue whether or not this is an immersion program, the issue of the dilution of its content focus is a serious one and further research might be devoted to testing ways in which the teaching of language learning and communication strategies might be integrated into the teaching of content.

To summarise, the following findings have emerged from the research project:

- the explicit teaching of learning and production strategies for reading and writing Japanese has resulted in the students possessing a greater range of strategies to cope with reading and writing in Japanese;
- students are approaching reading and writing Japanese with more confidence;
- both teachers and students claim that reading and writing skills have improved over the last twelve months;
- students claim that the greater range of strategies that they now possess has made the learning of kanji a more manageable task;
- there is a possibility that the explicit teaching of strategies is contributing to a diminution of the content focus of the program and replacing this with a language focus.

If this last finding represents a permanent change to the program, this is indeed an unfortunate development since it would signal a change from an

immersion style approach to a more traditional language orientated approach which has been exhaustively tried in the past and found seriously wanting.

Future research might investigate this issue and attempt to answer the question of whether it is possible to help students develop language learning strategies without sacrificing the content focus which has been the essential foundation of immersion programs.

Appendix A

Description of ASLPR levels used in the report

Key headings from Australian Second Language Proficiency Ratings (ASLPR)

D.E. Ingram and Elaine Wylie (1979/1983)

Level 3 Speaking: Minimum Vocational Proficiency

Able to speak the language with sufficient structural accuracy and vocabulary to participate effectively in most formal and informal conversations on practical, social and vocational topics.

Level 3 Listening: Minimum Vocational Proficiency

Able to comprehend sufficiently readily to be able to participate in most formal and informal conversations with native speakers on social topics and on those vocational topics relevant to own interests and experiences.

Level 3 Reading: Minimum Vocational Proficiency

Able to read standard newspaper items addressed to the general reader, routine correspondance, reports and technical material in his or her special field, and other everyday materials (e.g., best-selling novels and similar recreational literature).

Level 3 Writing: Minimum Vocational Proficiency

Able to write with sufficient accuracy in structures and spelling to meet all social needs and basic work needs.

Level 2 Reading: Minimum Social Proficiency

Able to read simple prose, in a form equivalent to typescript or printing, on subjects within a particular context.

Level 2 Writing: Minimum Social Proficiency

Able to satisfy routine social demands and limited work requirements.

Appendix B

MEMO

TO: BEd Japanese immersion students

FROM: Gary Birch and Michèle de Courcy

DATE: July 27, 1993

RE: Being involved in a research project

Dear students

As you know, we have received funding for a research project involving students in your class. The aim of the research is to investigate the strategies used by Japanese immersion students in reading and writing Japanese.

In order to gather data for the study, we need five volunteers to act as informants.

During the first phase of the research we plan to attend some of your classes as observers. In order to maintain anonymity our observation notes (and tapes if used) would be kept from public view and names of teachers and students would be changed both in the transcripts and in the final report.

A thirty minute (approx.) interview about their strategies would next be held with each of the five key informants. A later interview would involve the use of a "think-aloud protocol" where you would perform a reading and writing task while thinking aloud onto a tape.

The five volunteers would also be asked to record their language learning experiences in a learner diary and allow the researchers access to this diary. As with the observation data, no record of your name is required and every effort will be made to preserve your anonymity.

If you were interested in being involved in the study, we would need to ask you to give us about half an hour of your time for the two interview sessions, as well as your permission to access your diary entries.

In order to conduct the study, we need the fully informed consent of those involved. Therefore, could you please complete the attached form and return it to Michèle in person during your computer lab lesson with her.

BEST COPY AVAILABLE

To: Gary Birch and Michèle de Courcy

From: _____

I would be interested in acting as an informant for your research project.

Yes [] No []

If you answered Yes, could you also please complete the following:

I give Gary Birch and Michèle de Courcy permission to :

a) use my words recorded during observations in reports of the study
Yes [] No[]

b) interview me and use my words in reports of the study
Yes [] No []

c) read my language learning journal and refer to its contents in reports of the study
Yes [] No []

Signed: _____ Date: _____

THANK YOU FOR YOUR COOPERATION -- IT IS MUCH APPRECIATED!

(note: learner diaries were not eventually used in the project)

Appendix C

Cloze test used for the think-aloud protocols

（1）日本人にとって、お正月はとても大切な（　　）の一つです。

（2）（　　）になると大そうじをしたりおせち料理を作ったりで（　　）は、いそがしくなります。

（3）大みそかの夜、（　　）や（　　）に行き（　　）を聞きながら新年を待ちます。

（4）日本のお正月は七日まで続きますが、ふつう、（　　）は四日から始まります。

（5）元旦から三日までは（　）の人たちや、知り合いの人たちが　あいさつに来て、子供たちに（　　）をくれます。

（6）ふだんあまり会えない人からの（　　）を読むことも、楽しみの一つです。

年の終わり	お年玉	年賀状	行事	仕事	
神社	家庭の主婦	お寺	親せき	除夜の鐘	

Appendix D

Transcription conventions used

[no [she	said at same time, overlapping
/	no pause
our-	speaker stops suddenly
,	brief pause
-	longer pause
...	words omitted
//	speaker interrupts
?	upward intonation
.	downward intonation
OBENTOU	Romanised transcription of a Japanese word
must	emphasis
[ ]	researcher's observation
( )	untranscribable
(call)	uncertain transcription
(4.0)	pause - approximate length in seconds

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